

**IN THE CLAIMS:**

1. (Cancelled).

2. (Currently Amended): A compound method in accordance with Claim 1-8 wherein R<sup>1</sup> is methyl, and R<sup>2</sup> is pentyl or hexyl.

3. (Currently Amended): A compound method in accordance with Claim 1-8 wherein the

R<sup>1</sup>

\

N- group is located at the para position on the phenyl ring.

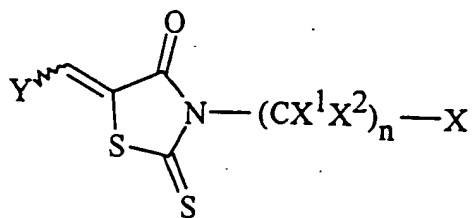
/

R<sup>2</sup>

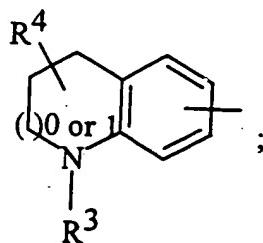
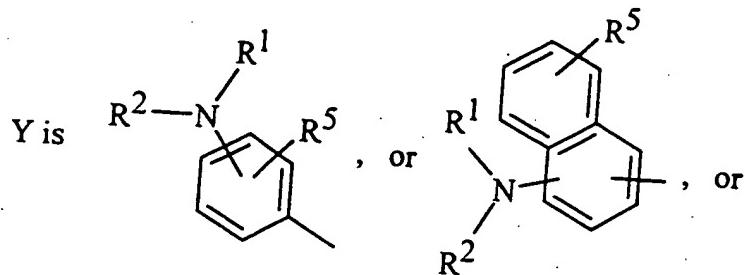
4. – 7 (Cancelled).

8. (Currently Amended): A method of imaging amyloid deposits, the method comprising the steps of :

a. introducing into a patient a detectable quantity of a labeled compound of Claim 1 having the Formula I:



or a pharmaceutically acceptable salts thereof, wherein:

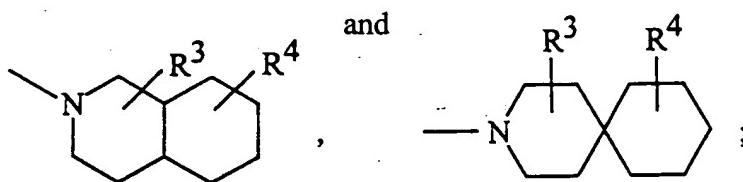
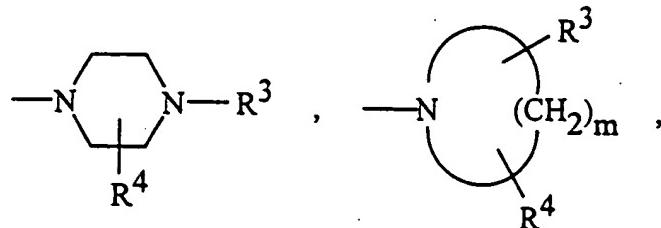


each n is independently 1 to 3 inclusive; X<sup>1</sup> and X<sup>2</sup> are independently hydrogen or C<sub>1</sub>-C<sub>8</sub> alkyl, or -(CH<sub>2</sub>)<sub>y</sub>-Z; y is 0 to 4 inclusive; Z is hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, C<sub>3</sub>-C<sub>8</sub> perfluoroalkyl, C<sub>2</sub>-C<sub>8</sub> alkenyl, phenyl, substituted phenyl, naphthyl, substituted naphthyl, -OH, -OC<sub>1</sub>-C<sub>8</sub> alkyl, -SC<sub>1</sub>-C<sub>8</sub> alkyl, -SO<sub>3</sub>H, -CO<sub>2</sub>H, -CO<sub>2</sub>C<sub>1</sub>-C<sub>8</sub> alkyl,

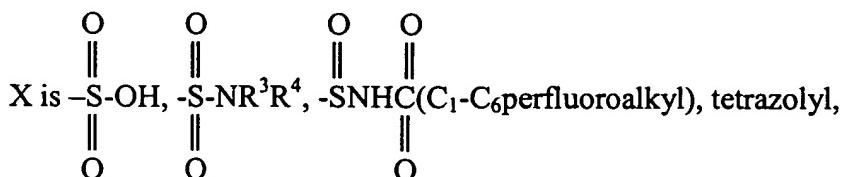
O            O            O  
-CHN<sub>2</sub>, -CNH(C<sub>1</sub>-C<sub>8</sub>alkyl), -CN(C<sub>1</sub>-C<sub>8</sub>alkyl)<sub>2</sub>, -NH<sub>2</sub>, -NH(C<sub>1</sub>-C<sub>8</sub>alkyl),

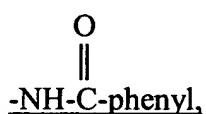
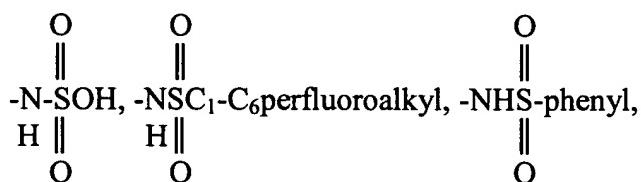
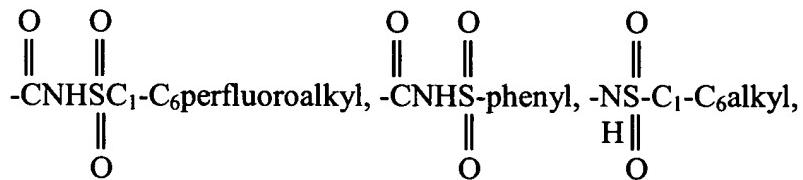
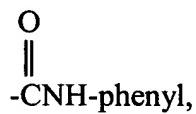
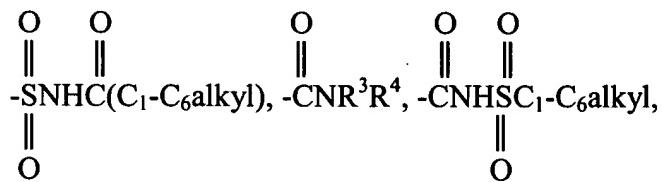
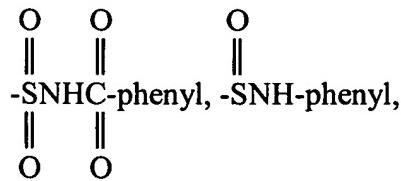
O  
-N(C<sub>1</sub>-C<sub>8</sub>alkyl)<sub>2</sub>, -NCC<sub>1</sub>-C<sub>8</sub> alkyl, guanidinyl, thienyl, imidazolyl, thiazolyl or indolyl;

R<sup>1</sup> and R<sup>2</sup> are independently C<sub>1</sub>-C<sub>8</sub>alkyl or -(CH<sub>2</sub>)<sub>n</sub>-C<sub>3</sub>-C<sub>6</sub>cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub>-phenyl, or R<sup>1</sup> and R<sup>2</sup> taken together with the nitrogen atom to which they are attached form a cyclic structure selected from the group consisting of



where R<sup>3</sup> and R<sup>4</sup> independently are hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, -(CH<sub>2</sub>)<sub>n</sub>-phenyl, or -(CH<sub>2</sub>)<sub>n</sub> cycloalkyl; R<sup>5</sup> is hydrogen, C<sub>1</sub>-C<sub>8</sub> alkyl, halogen, or -CF<sub>3</sub>; each m is 2 to 8 inclusive;





$\text{O}$   
 $\text{O}$   
-NHCC<sub>1</sub>-C<sub>6</sub>perfluoroalkyl, or -NHCC<sub>1</sub>-C<sub>6</sub>alkyl; wherein phenyl includes substituted phenyl;

- b. allowing sufficient time for the labeled compound to become associated with amyloid deposits; and
- c. detecting the labeled compound associated with the amyloid deposits.

9. (Original): The method of Claim 8 wherein the patient has or is suspected to have Alzheimer's disease.

10. (Original): The method of Claim 8 wherein the labeled compound is a radiolabeled compound.

11. (Currently Amended): The method of Claim 8 ~~herein~~ wherein the labeled compound is detected using MRI.